(54) Splicing compressed packetized digital video streams

(57) A secondary packetized data stream (IS), such as a commercial, is spliced with a primary packetized data stream (MS), such as a network television program. The system does not require decompression of the data in the primary data stream, and is particularly suitable for use at a cable system headend to allow the insertion of commercials from local businesses into a nationally broadcast television program. When a start signal (T_in)is received, a pre-splicing packet (700, 800, 900, 1000) of the primary stream is determined. The pre-splicing packet is the packet closest to the start time which carries an anchor frame (e.g., I or P frame) start code (706, 804, 905, 1003). To prevent a potential discontinuity at the decoder (168), the pre-splicing packet (700, 800, 900, 1000) is processed to discard the anchor frame data, and to insert a number of stuffing bytes (712, 812, 912, 1012) which is equal to the number of bytes discarded into an adaptation field of the pre-splicing packet. To further maintain continuity at the decoder, identifying data of the primary stream such as PID and PSI data, is retrieved and provided to the secondary stream. A number of null packets (430) are inserted into the output stream (OS) at the transition point between the main program and the commercial to prevent a buffer overflow at a decoder (168) which receives the output stream (OS).
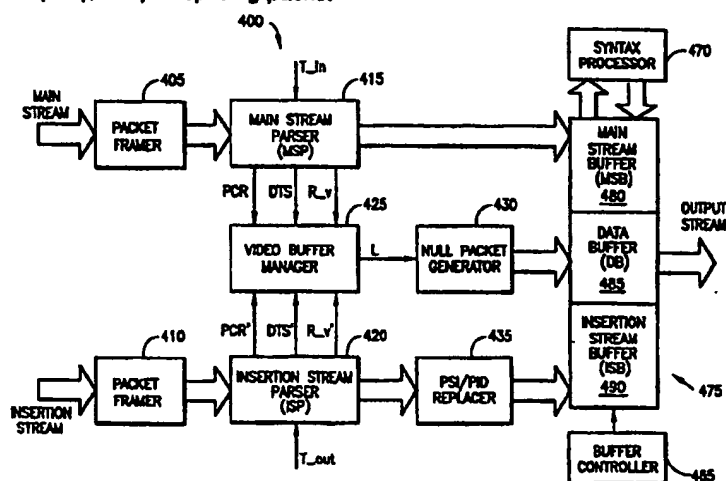
FIG.4